

Facility Name: Merck & Co., Inc. - Stonewall Plant
 Owner: Merck, Inc.
 Expiration Date: 12-31-11

County: Rockingham
 Permit #: VA00 02178
 Permit Writer: DMS

	Date
Reissuance Reminder Package Sent (START PP FILE, UPDATE CEDS)	12-30-10
Application Due	7-4-11
Email or Phone Call to Offer App. Assistance (One Month Prior to Application Due Date)	3-3-11
Application Received (UPDATE CEDS)	7-5-11
Warning Letter Sent (if necessary)	NA
SCC Certification Proof (for PVOTWs with >50 residences)	NA
Additional Information Requested	7-7-11
Additional Information Received	7-11-11
Verification that all annual permit maintenance fees have been paid	6-6-11
Application Considered Complete (Notify Applicant)	7-15-11
Application to VDH (if not sent by owner)	7-20-11
Comments Received from VDH	7-22-11
Application Reviewed by Planning - WQMP applicable? <input checked="" type="checkbox"/> Y/N <u>to JAS 6-10-11</u>	6-14-11
Application Reviewed by TMDL Program - Impaired? <input checked="" type="checkbox"/> Y/N <u>to TCS 6-10-11</u>	6-17-11
Application Reviewed by TMP Program - TMP necessary? <input checked="" type="checkbox"/> Y/N <u>PW wrote</u>	NA
Flow Frequency Requested <u>PW wrote</u>	NA
Flow Frequency Received	3-17-11
Site Inspection	6-29-11
Site Inspection Report	6-29-11
SIGNIFICANT CHANGES: Notify Local Government of Receipt of Application	NA
SIGNIFICANT CHANGES: Contact Commissioner of Revenue for Riparian/Adjacent Property Owners	NA
List of Riparian/Adjacent Property Owners Received	NA
SIGNIFICANT CHANGES: Notify Riparian/Adjacent Property Owners of Receipt of Application	NA
SIGNIFICANT CHANGES/ON T&E List: Notify <u>DCIF</u> and/or <u>DCR</u>	7-1-11
Comments Received from DGIF	NA
Comments Received from DCR	7-25-11
Draft Permit & Fact Sheet Prepared	9-23-11
Draft Permit & Fact Sheet To Peer Review	9-23-11
Draft Permit & Fact Sheet to BDK for review	10-4-11
Draft Permit & Fact Sheet to Planning, Pretreatment & Inspectors for review	10-6-11
Planning Comments Received	10-7-11
Pretreatment Comments Received	NA
Inspectors Comments Received	10-18-11
Draft Permit, Fact Sheet, & Public Notice Information to Owner	10-6-11
Draft Permit & Fact Sheet Concurrence Received from Owner (within 14 days)	11-1-11
MINORS WITH TMDL EFFLUENT LIMIT & ALL MAJORS: Application, DP, FS, & Checklist to EPA	11-2-11
EPA Comments Received	12-1-11
Public Notice to Newspaper (Electronic copy of Public Notice to Deborah Hawkins-CO)	11-2-11
Public Notice to Local Government, PDCs, & etc.	11-2-11
Newspaper Contacted to Verify Public Notice Receipt & Publication	11-2-11
First Public Notice Date	11-4-11
Verification from Newspaper	11-14-11
Public Notice Period Complete (Add Public Notice dates to Fact Sheet)	12-4-11
Enter All Applicable Information into CEDS (Events, Special Conditions, Billing Info, & etc.)	11-30-11
Enter Signature & Other Applicable Dates into CEDS (After signed)	

Concurrences

Signature	<u>Dawn Gifford</u>	<u>SMM</u>	<u>blax</u>	<u>[Signature]</u>	<u>[Signature]</u>
Date	<u>12-5-11</u>	<u>12/6/11</u>	<u>12/15/11</u>	<u>12/15/11</u>	<u>12/16/11</u>



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE

Douglas W. Domenech
Secretary of Natural Resources

4411 Early Road, P.O. Box 3000, Harrisonburg, Virginia 22801
(540) 574-7800 Fax (540) 574-7878
www.deq.virginia.gov

David K. Paylor
Director

Amy Thatcher Owens
Regional Director

December 16, 2011

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Mr. John A. McCloskey
Environmental Manager
Merck Sharp & Dohme Corporation
2778 East Side Highway
Elkton, Virginia 22827

Re: Reissuance, VPDES Permit No. VA0002178, Merck Sharp & Dohme Corp. -- Stonewall Plant

Dear Mr. McCloskey:

The enclosed permit has been approved. This permit action involved reissuing an existing permit to discharge treated wastewater. In accordance with the permit, you are required to submit Discharge Monitoring Reports (DMRs) by the tenth of each month to:

Virginia Department of Environmental Quality
Valley Regional Office
P.O. Box 3000
Harrisonburg, Virginia 22801

The reporting form is included with the permit. You will be responsible for obtaining additional copies of the DMR. The first DMR for the month ending January 31, 2012 is due by February 10, 2012. Please refer to Guidance Memo 06-2016, available from the following web site, for instructions on completing your DMR: <http://www.deq.virginia.gov/waterguidance/permits.html>.

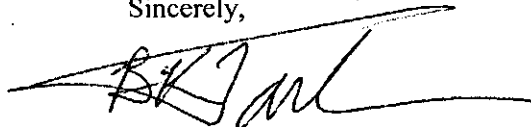
DEQ has launched an e-DMR program that allows you to submit the effluent data electronically. If you are interested in participating in this program please visit the following website for details: <http://www.deq.virginia.gov/water/edmrfaq.html>.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.

Alternatively, any owner under §§ 62.1 - 44.16, 62.1 - 44.17, and 62.1 - 44.19 of the State Water Control Law aggrieved by any action of the State Water Control Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in §1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

If you have questions about this permit, please do not hesitate to contact Brandon Kiracofe at (540) 574-7892 or brandon.kiracofe@deq.virginia.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Keith Fowler', with a long horizontal line extending to the right.

B. Keith Fowler
Deputy Regional Director

Enclosure: Permit No. VA0002178
cc: EPA, Region III – 3WP12 (electronic)
L. Ferguson-Davie – VRO
FileNet – VA0002178

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE

4411 Early Road - P.O. Box 3000

Harrisonburg, VA 22801

SUBJECT: Reissuance of VPDES Permit No. VA0002178, Merck Sharp & Dohme Corp. –
Stonewall Plant

TO: Deputy Regional Director

FROM: Regional Water Permits Manager



DATE: December 15, 2011

COPIES: FileNet – VA0002178

Other Agency Comments:

EPA had no objections to the draft permit.

See Item 27 of the Fact Sheet for information on DCR comments on the draft permit.

No other agency comments were received.

Public Notice Comments:

No comments were received.

Staff Comments:

None



COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. VA0002178

Effective Date: January 1, 2012

Expiration Date: December 31, 2016

**AUTHORIZATION TO DISCHARGE UNDER THE
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM**

AND

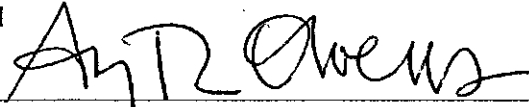
THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, Part I - Effluent Limitations and Monitoring Requirements, and Part II - Conditions Applicable To All VPDES Permits, as set forth herein.

Owner: **Merck Sharp & Dohme Corp., a Division of Merck & Co., Inc.**
Facility Name: **Merck Sharp & Dohme Corp. - Stonewall Plant**
County: **Rockingham**
Facility Location: **2778 South East Side Highway, Elkton**

The owner is authorized to discharge to the following receiving stream:

Stream: **South Fork Shenandoah River**
River Basin: **Potomac**
River Subbasin: **Shenandoah**
Section: **3**
Class: **IV**
Special Standards: **pH**



Amy T. Owens, Regional Director
Valley Regional Office

12/16/11

Date

Permit Required Special Condition and DMR Due Dates*

Facility Name: Merck Sharp & Dohme Corporation **Permit No:** VA0002178

Special Condition	Due Date
Submit Revised O&M Manual	3/1/2012
Submit Verification of Compliance with SWPPP	10/7/2012
Submit 1st Annual Acute Toxicity Test	1/10/2013
Submit 1st Annual Chronic Toxicity Test	1/10/2013
Submit 2nd Annual Acute Toxicity Test	1/10/2014
Submit 2nd Annual Chronic Toxicity Test	1/10/2014
Submit 3rd Annual Acute Toxicity Test	1/10/2015
Submit 3rd Annual Chronic Toxicity Test	1/10/2015
Submit 4th Annual Acute Toxicity Test	1/10/2016
Submit 4th Annual Chronic Toxicity Test	1/10/2016
Submit Attachment A WQC Monitoring	7/4/2016
Submit VPDES Permit Application	7/4/2016
Submit 5th Year Annual Acute Toxicity Test	12/10/2016
Submit 5th Year Annual Chronic Toxicity Test	12/10/2016

*This list is intended to assist the permittee; however, it is not intended to supersede any permit requirements.

DMR Monitoring Periods and Due Dates Based on Calendar Reporting

Permit Effective Date	Monitoring Start Date	Reporting Frequency	1 st DMR Due Date	Monitoring Period Example
1/1/2012	1/1/2012	Monthly	2/10/2012	1/1/2012 - 1/31/2012
1/1/2012	1/1/2012	Semiannual	7/10/2012	1/1/2012 - 6/30/2012

PERMITTEE NAME/ADDRESS(INCLUDE
FACILITY NAME/LOCATION IF DIFFERENT)

NAME Merck Sharp & Dohme Corporation
ADDRESS 2778 S East Side Hwy
Elkton VA 22827
FACILITY LOCATION 2778 S East Side Hwy

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES)
DISCHARGE MONITORING REPORT(DMR)

VA0002178			001			
PERMIT NUMBER			DISCHARGE NUMBER			
MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

FROM

TO

Industrial Major 12/13/2011

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Valley Regional Office
4411 Early Road
P.O. Box 3000
Harrisonburg VA 22801

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS
BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTD				*****	*****	*****				
	REQRMNT	NL	NL	MGD	*****	*****	*****			CONT	TIRE
002 PH	REPORTD	*****	*****			*****					
	REQRMNT	*****	*****		6.5	*****	9.0	SU		CONT	REC
003 BOD5	REPORTD				*****						
	REQRMNT	NL	NL	KG/D	*****	NL	NL	MG/L		1/M	24HC
004 TSS	REPORTD				*****						
	REQRMNT	NL	NL	KG/D	*****	NL	NL	MG/L		1/M	24HC
007 DO	REPORTD	*****	*****			*****	*****				
	REQRMNT	*****	*****		4.5	*****	*****	MG/L		1/DAY	GRAB
008 COD	REPORTD				*****						
	REQRMNT	NL	NL	KG/D	*****	NL	NL	MG/L		1/M	24HC
018 CYANIDE, TOTAL (AS CN)	REPORTD		*****		*****	*****					
	REQRMNT	2.8	*****	KG/D	*****	*****	0.26	MG/L		1/W	GRAB
039 AMMONIA, AS N	REPORTD				*****						
	REQRMNT	NL	NL	KG/D	*****	NL	NL	MG/L		1/M	24HC

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

Submit operator's daily log report with DMR. Enter bypass and overflow information below only if applicable.

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE			DATE		
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			TELEPHONE		
				TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY

PERMITTEE NAME/ADDRESS(INCLUDE
FACILITY NAME/LOCATION IF DIFFERENT)

NAME Merck Sharp & Dohme Corporation
ADDRESS 2778 S East Side Hwy
Elkton VA 22827
FACILITY LOCATION 2778 S East Side Hwy

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES)
DISCHARGE MONITORING REPORT(DMR)**

VA0002178			001			
PERMIT NUMBER			DISCHARGE NUMBER			
MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

FROM

TO

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		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
068 TKN (N-KJEL)	REPORTD				*****	*****	*****				
	REQRMNT	1291	2600	KG/D	*****	*****	*****			1/M	24HC
080 TEMPERATURE, WATER (DEG. C)	REPORTD	*****	*****		*****	*****					
	REQRMNT	*****	*****		*****	*****	37	C		CONT	REC
165 CL2, INST RES MAX	REPORTD	*****	*****		*****						
	REQRMNT	*****	*****		*****	0.087	0.18	MG/L		1/DAY	GRAB
225 pH, TOTAL EXCURSION TIME	REPORTD	*****			*****	*****	*****				
	REQRMNT	*****	446	MIN	*****	*****	*****			CONT	REC
226 pH, INDIVIDUAL EXCURSION TIME	REPORTD	*****			*****	*****	*****				
	REQRMNT	*****	60	MIN	*****	*****	*****			CONT	REC
229 TEMP, TOTAL EXCURSION TIME	REPORTD	*****			*****	*****	*****				
	REQRMNT	*****	446	MIN	*****	*****	*****			CONT	REC
230 TEMP, INDIVIDUAL EXCURSION TIME	REPORTD	*****			*****	*****	*****				
	REQRMNT	*****	180	MIN	*****	*****	*****			CONT	REC
	REPORTD										
	REQRMNT									*****	

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Elkton VA 22827
FACILITY LOCATION 2778 S East Side Hwy

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES)
DISCHARGE MONITORING REPORT(DMR)**

VA0002178			101		
PERMIT NUMBER			DISCHARGE NUMBER		
MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY

FROM

TO

Industrial Major 12/13/2011

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		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTD				*****	*****	*****				
	REQRMNT	1.2	NL	MGD	*****	*****	*****			CONT	TIRE
003 BOD5	REPORTD				*****	*****	*****				
	REQRMNT	990	2700	KG/D	*****	*****	*****			1/W	24HC
004 TSS	REPORTD				*****	*****	*****				
	REQRMNT	1700	3400	KG/D	*****	*****	*****			1/W	24HC
008 COD	REPORTD				*****	*****	*****				
	REQRMNT	3400	6600	KG/D	*****	*****	*****			1/W	24HC
039 AMMONIA, AS N	REPORTD				*****	*****	*****				
	REQRMNT	130	380	KG/D	*****	*****	*****			1/W	24HC
101 ACETONE	REPORTD				*****	*****	*****				
	REQRMNT	0.91	2.3	KG/D	*****	*****	*****			1/6M	24HC
102 4-METHYL-2-PENTANONE (MIBK)	REPORTD				*****	*****	*****				
	REQRMNT	0.91	2.3	KG/D	*****	*****	*****			1/6M	24HC
103 ISOBUTYRALDEHYDE	REPORTD				*****	*****	*****				
	REQRMNT	2.3	5.4	KG/D	*****	*****	*****			1/6M	24HC

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				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES)
DISCHARGE MONITORING REPORT(DMR)**

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		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
104 N-AMYL ACETATE	REPORTD				*****	*****	*****				
	REQRMNT	2.3	5.9	KG/D	*****	*****	*****			1/6M	24HC
122 N-BUTYL ACETATE	REPORTD				*****	*****	*****				
	REQRMNT	2.3	5.9	KG/D	*****	*****	*****			1/6M	24HC
123 ETHYL ACETATE	REPORTD				*****	*****	*****				
	REQRMNT	2.3	5.9	KG/D	*****	*****	*****			1/6M	24HC
128 ISOPROPYL ACETATE	REPORTD				*****	*****	*****				
	REQRMNT	2.3	5.9	KG/D	*****	*****	*****			1/6M	24HC
129 METHYL FORMATE	REPORTD				*****	*****	*****				
	REQRMNT	2.3	5.9	KG/D	*****	*****	*****			1/6M	24HC
130 AMYL ALCOHOL	REPORTD				*****	*****	*****				
	REQRMNT	19	45	KG/D	*****	*****	*****			1/6M	24HC
146 ETHANOL	REPORTD				*****	*****	*****				
	REQRMNT	19	45	KG/D	*****	*****	*****			1/6M	24HC
147 ISOPROPANOL	REPORTD				*****	*****	*****				
	REQRMNT	7.3	18	KG/D	*****	*****	*****			1/6M	24HC

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PERMITTEE NAME/ADDRESS(INCLUDE
FACILITY NAME/LOCATION IF DIFFERENT)

NAME Merck Sharp & Dohme Corporation
ADDRESS 2778 S East Side Hwy
Elkton VA 22827
FACILITY LOCATION 2778 S East Side Hwy

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES)
DISCHARGE MONITORING REPORT(DMR)**

VA0002178			101		
PERMIT NUMBER			DISCHARGE NUMBER		
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YEAR	MO	DAY	YEAR	MO	DAY

FROM

TO

Industrial Major 12/13/2011

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		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
148 METHANOL	REPORTD				*****	*****	*****				
	REQRMNT	19	45	KG/D	*****	*****	*****			1/6M	24HC
149 METHYL CELLOSOLVE	REPORTD				*****	*****	*****				
	REQRMNT	180	450	KG/D	*****	*****	*****			1/6M	24HC
175 PHENOL (AS C6H5OH)	REPORTD				*****	*****	*****				
	REQRMNT	0.091	0.23	KG/D	*****	*****	*****			1/6M	24HC
187 DIMETHYL SULFOXIDE	REPORTD				*****	*****	*****				
	REQRMNT	170	420	KG/D	*****	*****	*****			1/6M	24HC
188 TRIETHYLAMINE	REPORTD				*****	*****	*****				
	REQRMNT	460	1100	KG/D	*****	*****	*****			1/6M	24HC
189 N-HEXANE	REPORTD				*****	*****	*****				
	REQRMNT	0.091	0.14	KG/D	*****	*****	*****			1/6M	24HC
190 N-HEPTANE	REPORTD				*****	*****	*****				
	REQRMNT	0.091	0.23	KG/D	*****	*****	*****			1/6M	24HC
191 TETRAHYDROFURAN	REPORTD				*****	*****	*****				
	REQRMNT	12	38	KG/D	*****	*****	*****			1/6M	24HC

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

Submit operator's daily log report with DMR. Enter bypass and overflow information below only if applicable.

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE			DATE		
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
				TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY

PERMITTEE NAME/ADDRESS(INCLUDE
FACILITY NAME/LOCATION IF DIFFERENT)

NAME Merck Sharp & Dohme Corporation
ADDRESS 2778 S East Side Hwy
Elkton VA 22827
FACILITY LOCATION 2778 S East Side Hwy

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES)
DISCHARGE MONITORING REPORT(DMR)

VA0002178			101		
PERMIT NUMBER			DISCHARGE NUMBER		
MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY

FROM

TO

Industrial Major 12/13/2011

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Valley Regional Office
4411 Early Road
P.O. Box 3000
Harrisonburg VA 22801

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS
BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
192 ISOPROPYL ETHER	REPORTD				*****	*****	*****				
	REQRMNT	12	38	KG/D	*****	*****	*****			1/6M	24HC
194 DIETHYLAMINE	REPORTD				*****	*****	*****				
	REQRMNT	460	1100	KG/D	*****	*****	*****			1/6M	24HC
205 METHYLENE CHLORIDE	REPORTD				*****	*****	*****				
	REQRMNT	1.4	4.1	KG/D	*****	*****	*****			1/6M	24HC
207 ACETONITRILE	REPORTD				*****	*****	*****				
	REQRMNT	46	110	KG/D	*****	*****	*****			1/6M	24HC
216 BENZENE (AS C6H6)	REPORTD				*****	*****	*****				
	REQRMNT	0.091	0.23	KG/D	*****	*****	*****			1/6M	24HC
222 TOLUENE (AS C7H8)	REPORTD				*****	*****	*****				
	REQRMNT	0.091	0.27	KG/D	*****	*****	*****			1/6M	24HC
223 CHLOROFORM (AS CHCL3)	REPORTD				*****	*****	*****				
	REQRMNT	0.059	0.091	KG/D	*****	*****	*****			1/6M	24HC
260 1,2-DICHLOROETHANE	REPORTD				*****	*****	*****				
	REQRMNT	0.45	1.8	KG/D	*****	*****	*****			1/6M	24HC

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

Submit operator's daily log report with DMR. Enter bypass and overflow information below only if applicable.

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE			DATE		
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
				TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE			DATE		
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
				TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY

NAME	Merck Sharp & Dohme Corporation		
ADDRESS	2778 S East Side Hwy		
	Elkton	VA	22827
FACILITY LOCATION	2778 S East Side Hwy		

Industrial Major 12/13/2011

Valley Regional Office
4411 Early Road
P.O. Box 3000
Harrisonburg VA 22801

**NOTE: READ PERMIT AND GENERAL INSTRUCTIONS
BEFORE COMPLETING THIS FORM.**

VA0002178			102			
PERMIT NUMBER			DISCHARGE NUMBER			
MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

FROM

[illegible]

Submit operator's daily log report with DMR. Enter bypass and overflow information below only if applicable.

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN RESPONSIBLE CHARGE			DATE		
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED: BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.				TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
				PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
				TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY

This report is required by your VPDES permit and by law. (See, e.g., the Code of Virginia of 1950 §62.1-44.5 and 9 VAC 25-31-50.) Failure to report or failure to report truthfully can result in civil penalties of \$32,500 per violation, per day and felony prosecutions which can carry a 15 year term.

DISCHARGE MONITORING REPORT (DMR) - GENERAL INSTRUCTIONS

1. Complete this form in permanent ink or indelible pencil. The use of 'correction fluid/tape' is not allowed.
2. Be sure to enter the dates for the first and last day of the period covered by the report on the form in the space marked "Monitoring Period".
3. For those parameters where the "permit requirement" spaces have a requirement or limitation, provide data in the "reported" spaces in accordance with your permit.
4. Enter the average and maximum quantities and units in the "reported" spaces in the columns marked "Quantity or Loading".
 $\text{KG/DAY} = \text{Concentration (mg/L)} \times \text{Flow (MGD)} \times 3.785$ $\text{G/D (Grams/Day)} = \text{Concentration (mg/L)} \times \text{Flow (MGD)} \times 3785$
5. Enter maximum, minimum, and/or average concentrations and units in the "reported" spaces in the columns marked "Quality or Concentration".
6. For all parameters enter the number of samples which do not comply with the maximum and/or minimum permit requirements in the "reported" space in the column marked "No. Ex." (Number of Exceedances). If none, enter "0". Do NOT include monthly average violations in this field. Include any Maximum 7-Day Average and Maximum Weekly Average violations in this field. Permittees with continuous pH, or temperature monitoring requirements should consult the permit for what constitutes an exceedance and report accordingly.
7. You are required to sample (at a minimum) according to the Sample Frequencies and Sample Types specified in your permit.
8. Enter the actual frequency of analysis for each parameter (number of times per day, week, month, etc.) in the "reported" space in the column marked "Frequency of Analysis".
9. Enter the actual type of sample (Grab, 8HC, 24HC, etc) collected for each parameter in the "reported" space in the column marked "Sample Type".
10. Enter additional required data or comments in the space marked "additional permit requirements or comments". If additional required data or comments are appended to the DMR, reference appended correspondence in this field.
11. Record the number of bypasses during the month, the total flow in million gallons (MG) and BOD5 in kilograms (KG) in the proper columns in the section marked "Bypasses and Overflows".
12. The operator in responsible charge of the facility should review the form and sign in the space provided. If the plant is required to have a licensed operator or if the operator in responsible charge of the facility is a licensed operator, the operator's signature and certificate number must be reported in the spaces provided.
13. The principal executive officer then reviews the form and must sign in the space provided and provide a telephone number where he/she can be reached. Every page of the DMR must have an original signature.
14. Send the completed form(s) with original signatures to your Department of Environmental Quality Regional Office by the 10th of each month unless otherwise specified in the permit.
15. You are required to retain a copy of the report for your records.
16. Where violations of permit requirements are reported, attach a brief explanation in accordance with the permit requirements describing causes and corrective actions taken. Reference each separate violation by date.
17. If you have any questions, contact the Department of Environmental Quality Regional Office listed on the DMR.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall 001 (combined plant final outfall includes: internal Outfall 101, non-contact cooling water, and storm water).

This discharge shall be limited and monitored as specified below:

	<u>EFFLUENT CHARACTERISTICS</u>		<u>DISCHARGE LIMITATIONS</u>				<u>MONITORING REQUIREMENTS</u>	
	<u>Monthly Average</u>		<u>Weekly Average</u>	<u>Minimum</u>	<u>Maximum</u>		<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD) ^a	NL		NA	NA	NL		Continuous	TIRE
pH (standard units) ^b	NA		NA	6.5	9.0		Continuous	Recorded
BOD ₅ ^c	NL (mg/L)	NL (kg/d)	NA	NA	NL (mg/L)	NL (kg/d)	1/Month	24 HC
Suspended Solids ^c	NL (mg/L)	NL (kg/d)	NA	NA	NL (mg/L)	NL (kg/d)	1/Month	24 HC
Total Residual Chlorine (TRC)(mg/L) ^c	0.087		NA	NA	0.18		1/Day	Grab
Dissolved Oxygen (mg/L)	NA		NA	4.5	NA		1/Day	Grab
Chemical Oxygen Demand ^c	NL (mg/L)	NL (kg/d)	NA	NA	NL (mg/L)	NL (kg/d)	1/Month	24 HC
Total Cyanide ^c	2.8 kg/d		NA	NA	0.26 mg/L		1/Week	Grab
Ammonia-N ^c	NL (mg/L)	NL (kg/d)	NA	NA	NL (mg/L)	NL (kg/d)	1/Month	24 HC
Total Kjeldahl Nitrogen (as N)(kg/d) ^c	1291		NA	NA	2600		1/Month	24 HC
Temperature (°C) ^b	NA		NA	NA	37		Continuous	Recorded

NL = No Limitation, monitoring required

NA = Not Applicable

TIRE = Totalizing, Indicating, and Recording Equipment

24 HC = 24-Hour Composite

- The calculated flow of this outfall has been determined to be 10.86 MGD (See Fact Sheet, Introduction – Page 4 for additional information).
- See Part I.E.10 and Part I.E.11 for additional instructions regarding these parameters.
- See Part I.C. for additional monitoring and reporting instructions.
- There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from internal Outfall 101 (final discharge from industrial WWTP prior to mixing with non-contact cooling water).

This discharge shall be limited and monitored as specified below:

<u>EFFLUENT CHARACTERISTICS</u>	<u>DISCHARGE LIMITATIONS^d</u>				<u>MONITORING REQUIREMENTS</u>	
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD) ^a	NL	NA	NA	NL	Continuous	TIRE
BOD ₅ (kg/d) ^b	990	NA	NA	2700	1/Week	24 HC
Suspended Solids (kg/d) ^b	1700	NA	NA	3400	1/Week	24 HC
Chemical Oxygen Demand (kg/d) ^b	3400	NA	NA	6600	1/Week	24 HC
Ammonia-N (kg/d) ^b	130	NA	NA	380	1/Week	24 HC
Acetone (kg/d) ^{b,c}	0.91	NA	NA	2.3	1/6 Months	24 HC
4-Methyl-2-pentanone (MIBK) (kg/d) ^{b,c}	0.91	NA	NA	2.3	1/6 Months	24 HC
Isobutyraldehyde (kg/d) ^{b,c}	2.3	NA	NA	5.4	1/6 Months	24 HC
n-Amyl acetate (kg/d) ^{b,c}	2.3	NA	NA	5.9	1/6 Months	24 HC
n-Butyl acetate (kg/d) ^{b,c}	2.3	NA	NA	5.9	1/6 Months	24 HC
Ethyl acetate (kg/d) ^{b,c}	2.3	NA	NA	5.9	1/6 Months	24 HC
Isopropyl acetate (kg/d) ^{b,c}	2.3	NA	NA	5.9	1/6 Months	24 HC
Methyl formate (kg/d) ^{b,c}	2.3	NA	NA	5.9	1/6 Months	24 HC
Amyl alcohol (kg/d) ^{b,c}	19	NA	NA	45	1/6 Months	24 HC
Ethanol (kg/d) ^{b,c}	19	NA	NA	45	1/6 Months	24 HC
Isopropanol (kg/d) ^{b,c}	7.3	NA	NA	18	1/6 Months	24 HC
Methanol (kg/d) ^{b,c}	19	NA	NA	45	1/6 Months	24 HC
Methyl Cellosolve (kg/d) ^{b,c}	180	NA	NA	450	1/6 Months	24 HC
Phenol (kg/d) ^{b,c}	0.091	NA	NA	0.23	1/6 Months	24 HC
Dimethyl Sulfoxide (kg/d) ^{b,c}	170	NA	NA	420	1/6 Months	24 HC
Triethylamine (kg/d) ^{b,c}	460	NA	NA	1100	1/6 Months	24 HC
n-Hexane (kg/d) ^{b,c}	0.091	NA	NA	0.14	1/6 Months	24 HC
n-Heptane (kg/d) ^{b,c}	0.091	NA	NA	0.23	1/6 Months	24 HC
Tetrahydrofuran (kg/d) ^{b,c}	12	NA	NA	38	1/6 Months	24 HC
Isopropyl ether (kg/d) ^{b,c}	12	NA	NA	38	1/6 Months	24 HC
Diethylamine (kg/d) ^{b,c}	460	NA	NA	1100	1/6 Months	24 HC

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. (Continued)

<u>EFFLUENT CHARACTERISTICS</u>	<u>DISCHARGE LIMITATIONS^d</u>				<u>MONITORING REQUIREMENTS</u>	
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Methylene chloride (kg/d) ^{b,c}	1.4	NA	NA	4.1	1/6 Months	24 HC
Acetonitrile (kg/d) ^{b,c}	46	NA	NA	110	1/6 Months	24 HC
Benzene (kg/d) ^{b,c}	0.091	NA	NA	0.23	1/6 Months	24 HC
Toluene (kg/d) ^{b,c}	0.091	NA	NA	0.27	1/6 Months	24 HC
Chloroform (kg/d) ^{b,c}	0.059	NA	NA	0.091	1/6 Months	24 HC
1,2-Dichloroethane (kg/d) ^{b,c}	0.45	NA	NA	1.8	1/6 Months	24 HC
Chlorobenzene (kg/d) ^{b,c}	0.27	NA	NA	0.68	1/6 Months	24 HC
o-Dichlorobenzene (kg/d) ^{b,c}	0.27	NA	NA	0.68	1/6 Months	24 HC
Xylenes (kg/d) ^{b,c}	0.045	NA	NA	0.14	1/6 Months	24 HC

NL = No Limitation, monitoring required

NA = Not Applicable

TIRE = Totalizing, Indicating, and Recording Equipment

24 HC = 24-Hour Composite

1/6 Months = Semiannual sampling with the results submitted with the DMR due January 10th and July 10th of each year

- The average design flow of this treatment facility is 1.2 MGD and peak design flow is 2.1 MGD. See Part I.E.1. for additional requirements related to facility flows.
- See Part I.C. for additional monitoring and reporting instructions.
- These parameters shall be sampled as specified in the facility's O&M Manual. The samples must then be composited for analysis as per EPA procedures.
- All limitations are expressed to two significant figures.
- This facility has Total Nitrogen and Total Phosphorus calendar year load limits associated with this outfall included in the current Registration List under registration number VAN010007, enforceable under the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall 102 (final discharge from the sewage treatment plant prior to discharge in the wastewater treatment plant served by Outfall 001).

This discharge shall be limited and monitored as specified below:

	<u>DISCHARGE LIMITATIONS</u>				<u>MONITORING REQUIREMENTS</u>	
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD) ^a	NL	NA	NA	NL	Continuous	TIRE
E. coli (N/100 mL) ^b	126 Geometric Mean	NA	NA	NA	4/Month 10 a.m. to 4 p.m.	Grab

NL = No Limitation, monitoring required NA = Not Applicable
4/Month = 4 samples taken weekly during the calendar month

- a. The design flow of this treatment facility is 0.150 MGD. See Part I.E.I. for additional requirements related to facility flows.
b. See Part I.B. for additional instructions.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall 002 (storm water runoff from closed sanitary landfill).

This discharge shall be limited and monitored as specified below:

THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THIS OUTFALL.

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.

B. ADDITIONAL TRC LIMITATIONS AND MONITORING REQUIREMENTS – Outfall 102

1. The permittee shall monitor the TRC at the outlet of the chlorine contact tank, prior to mixing with any industrial process wastewater, 3/Day at 4 hour intervals by grab sample.
2. No more than 9 samples taken at the outlet of the chlorine contact tank, prior to mixing with any industrial process wastewater, shall be less than 1.0 mg/L for any one calendar month.
3. No TRC sample collected at the outlet of the chlorine contact tank, prior to mixing with any industrial process wastewater, shall be less than 0.6 mg/L.
4. If dechlorination facilities exist, the samples above shall be collected prior to dechlorination.
5. If chlorine disinfection is not used, E. coli shall be limited and monitored by the permittee as specified below:

	<u>Discharge Limit</u>	<u>Monitoring Requirements</u>	
	<u>Monthly Average</u>	<u>Frequency</u>	<u>Sample Type</u>
E. coli (N/100 mL)	126 (Geometric Mean)	3/Week Between 10 a.m. and 4 p.m. at 48-Hr. Intervals	Grab

This E. coli requirement, if applicable, shall substitute for the TRC and E. coli requirements specified elsewhere in this permit.

C. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - ADDITIONAL INSTRUCTIONS

1. Quantification Levels (QLs)

- a. For the following parameters, QLs shall be less than or equal to the following concentrations:

<u>Effluent Characteristic</u>	<u>QL</u>
BOD ₅	5 mg/L
Suspended Solids	1.0 mg/L
Chlorine	0.10 mg/L
Ammonia-N	0.20 mg/L
Chemical Oxygen Demand	10 mg/L
Total Cyanide	10 µg/L
Phenol	10 µg/L
Benzene	10 µg/L
Toluene	10 µg/L
Chloroform	10 µg/L
1,2-Dichloroethane	10 µg/L
o-Dichlorobenzene	10 µg/L
Methylene Chloride	20 µg/L
Chlorobenzene	50 µg/L

- b. For the following parameters, the QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.

Acetone
4-Methyl-2-pentanone (MIBK)
Isobutyraldehyde
n-Amyl acetate
n-Butyl acetate
Ethyl acetate
Isopropyl acetate
Methyl formate
Amyl Alcohol
Ethanol
Isopropanol
Methanol
Methyl Cellosolve
Dimethyl Sulfoxide
Triethylamine
n-Hexane
n-Heptane
Tetrahydrofuran
Isopropyl ether
Diethylamine
Acetonitrile
Xylenes

2. Compliance Reporting

- a. Monthly Average – Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part I.C.1. above shall be determined as follows: All data below the test method QL shall be treated as zeros. All data equal to or above the test method QL shall be treated as reported. Arithmetic concentration and/or loading averages (as applicable) shall be calculated using all reported data for the month, including the defined zeros. These averages shall be reported on the Discharge Monitoring Report (DMR). If all data are less than the test method QL, then “<QL” shall be reported on the DMR for the concentration and/or loading values. Otherwise the average values shall be reported as calculated.
- b. Daily Maximum – Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in Part I.C.1. above shall be determined as follows: All data below the test method QL shall be treated as zeros. All data equal to or above the test method QL shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages thus determined shall be reported on the DMR as the Daily Maximum. If all data are less than the test method QL, then “<QL” shall be reported on the DMR for the concentration and/or loading values.
- c. Any single datum required shall be reported as “<QL” if it is less than the test method QL. Otherwise, the numerical value shall be reported.
- d. The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used (i.e., always rounding up or to the nearest even number) by the permittee, the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.

D. WHOLE EFFLUENT TOXICITY (WET) REQUIREMENTS

1. In accordance with the schedule in Part I.D.4., the permittee shall conduct annual acute and chronic toxicity tests using 24-hour flow-proportioned composite samples of final effluent collected from Outfall 001.

The acute test shall be a 48-Hour Static Acute test using *Ceriodaphnia dubia*. Each test shall be performed with a minimum of 5 dilutions, derived geometrically, for calculation of a valid LC_{50} . Express the results as Acute Toxicity Units (TU_a) by dividing $100/LC_{50}$. Tests in which control survival is less than 90% are not acceptable.

The chronic tests shall be a Chronic 3-Brood Static Renewal Survival and Reproduction Test using *Ceriodaphnia dubia*. Each test shall be performed with a minimum of 5 dilutions, derived geometrically, in order to determine the No Observed Effect Concentration (NOEC) for survival and reproduction. Results which cannot be determined (i.e. a "less than" or "zero" NOEC value) are not acceptable, and a retest requiring further dilution must be started within 30 days of the original sample. Such "less than" or "zero" results must be submitted and will be regarded as evidence of effluent toxicity. Express the results as chronic Toxicity Units (TU_c) by dividing $100/NOEC$. Report the LC_{50} for each chronic test at the 48-hour point, and the IC_{25} , if calculable, with the NOECs in the required test report.

Any retest of a non-acceptable test must be performed within the same testing period.

During the term of the permit, the permittee may provide additional samples to address data variability. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

2. The test dilutions shall be able to determine compliance with the following endpoints:
 - a. Acute LC_{50} of 100%, equivalent to 1.0 TU_a
 - b. Chronic NOEC of 15%, equivalent to 6.66 TU_c
3. The test data will be evaluated for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule may be required and the toxicity tests of Part I.D.1. may be discontinued. If the data indicate that no limit is needed, the permittee shall continue acute and chronic toxicity testing of the outfall annually, as specified in Part I.D.4.
4. The permittee shall supply 1 copy of the test report for the toxicity tests specified in Part I.D.1. in accordance with the following schedule:

<u>Monitoring Period</u>	<u>Testing Period</u>	<u>Submittal by</u>
1 st Annual	8/1/2012 to 9/30/2012	1/10/2013
2 nd Annual	8/1/2013 to 9/30/2013	1/10/2014
3 rd Annual	8/1/2014 to 9/30/2014	1/10/2015
4 th Annual	8/1/2015 to 9/30/2015	1/10/2016
5 th Annual	8/1/2016 to 9/30/2016	12/10/2016

E. OTHER REQUIREMENTS AND SPECIAL CONDITIONS

1. 95% Capacity Reopener – A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to:

Department of Environmental Quality
Valley Regional Office
P.O. Box 3000
Harrisonburg, Virginia 22801

when the monthly average influent flow to the wastewater treatment facility reaches 95 percent of the design capacity authorized in this permit for each month of any six consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the DEQ-Valley Regional Office no later than 90 days from the sixth consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.

2. Materials Handling/Storage – Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.
3. Operations and Maintenance (O&M) Manual Requirements –
 - a. The permittee shall maintain a current and approved O&M Manual for the treatment works. This manual shall detail the practices and procedures which will be followed to ensure compliance with the requirements of this permit. This manual shall include, but not necessarily be limited to, the following items:
 - (1) Treatment system design, treatment system operation, routine preventive maintenance of units within the treatment system, critical spare parts inventory and record keeping;
 - (2) Techniques to be employed in the collection, preservation, and analysis of effluent samples;
 - (3) Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants characterized in Part I.E.2. that will prevent these materials from reaching state waters;
 - (4) Procedures for documenting compliance with the permit requirement that there shall be no discharge of floating solids or visible foam in other than trace amounts; and
 - (5) A plan for the management and/or disposal of waste solids/residues.

The permittee shall operate the treatment works in accordance with the approved O&M Manual. Any changes in the practices and procedures followed by the permittee shall be documented and submitted for DEQ approval within 90 days of the effective date of the changes. Upon approval of the submitted manual changes, the revised manual becomes an enforceable part of the permit. Noncompliance with the O&M Manual shall be deemed a violation of the permit.

- b. Within 60 days of the effective date of the permit, the permittee shall submit to the DEQ-Valley Regional Office for approval revisions to the O&M Manual that address documenting compliance with the permit requirement that there shall be no discharge of floating solids or visible foam in other than trace amounts.

4. Concept Engineering Report (CER) Requirement – This facility shall submit a CER for DEQ approval prior to installation of any nutrient removal wastewater treatment technology. Upon approval of a CER for the installation of nutrient removal technology, DEQ staff shall initiate modification or, alternatively, revocation and reissuance, of this permit to include annual concentration limits based on the technology proposed in the CER. The permittee shall inform the DEQ regional office within 14 days of completion of construction of any project for which a CER has been approved. Upon completion of construction in accordance with a CER that has been approved by DEQ, any nutrient removal facilities installed shall be operated to achieve the design effluent TN and TP concentrations.
5. Sludge Management Plan (SMP) Requirement – The permittee shall conduct all sewage sludge use or disposal activities in accordance with the SMP approved with the reissuance of this permit. Any proposed changes in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ approval 90 days prior to the effective date of the changes. Upon approval, the SMP becomes an enforceable part of the permit. This permit may be modified or, alternatively, revoked and reissued to incorporate limitations/conditions necessitated by substantive changes in sewage sludge use or disposal practices.
6. Licensed Operator Requirement – The permittee shall employ or contract at least one Class II licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the DEQ-Valley Regional Office in writing whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.
7. Water Quality Criteria Monitoring – The permittee shall monitor the effluent at Outfall 001 for the substances noted in Attachment A of this permit according to the indicated analysis number, quantification level, sample type and frequency. Monitoring shall be initiated after the start of the third year from the permit's effective date. Using Attachment A as the reporting form, the data shall be submitted with the next permit reissuance application which is due at least 180 days prior to the expiration date of this permit. Monitoring and analyses shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved method. Methods other than those specified in Attachment A may be used with prior notification to and approval from DEQ. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. DEQ will use these data for making specific permit decisions in the future. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in Attachment A.
8. Reopeners – This permit may be modified or, alternatively, revoked and reissued:
 - a. If any approved waste load allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes waste load allocations, limits or conditions on the facility that are not consistent with the permit requirements; or
 - b. To incorporate technology-based effluent concentration limitations for nutrients in conjunction with the installation of nutrient control technology, whether by new construction, expansion or upgrade; or
 - c. To incorporate alternative nutrient limitations and/or monitoring requirements, should:
 - (1) the State Water Control Board adopt new nutrient standards for the water body receiving the discharge, including the Chesapeake Bay or its tributaries; or
 - (2) a future water quality regulation or statute require new or alternative nutrient control; or
 - d. If any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.

9. Notification Levels – The permittee shall notify the DEQ-Valley Regional Office as soon as they know or have reason to believe:
- That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - 100 µg/L;
 - 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and 1 mg/L for antimony;
 - Five times the maximum concentration value reported for that pollutant in the permit application; or
 - The level established by the Board.
 - That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - 500 µg/L;
 - 1 mg/L for antimony;
 - Ten times the maximum concentration value reported for that pollutant in the permit application; or
 - The level established by the Board.
10. Additional Instructions for pH – With respect to Part I.A.1. pH limits:
- The total time during which effluent pH values are outside the range of 6.5 to 9.0 SU shall not exceed 7 hours and 26 minutes (approximately 1% of the reporting period) for any calendar month.
 - No individual excursion outside the range of 6.5 to 9.0 SU shall exceed 60 minutes.
 - Any and all excursions exceeding 60 minutes or the 1% exception allowance shall be reported in accordance with Part II.I. of the permit. An excursion is defined as an unintentional and temporary incident in which the effluent pH exceeds the range of 6.5 to 9.0 SU.
11. Additional Instructions for Temperature – With respect to Part I.A.1. temperature limits:
- The total time during which effluent temperature exceeds 37 °C shall not exceed 7 hours and 26 minutes (approximately 1% of the reporting period) for any calendar month.
 - No individual excursion greater than 37 °C shall exceed 180 minutes.
 - Any and all excursions exceeding 180 minutes or the 1% exception allowance shall be reported in accordance with Part II.I. of the permit. An excursion is defined as an unintentional and temporary incident in which the effluent temperature exceeds 37° C.
12. Cooling Water and Boiler Additives – If at any time during the life of this permit, the permittee decides to treat any non-contact cooling water unit(s) and/or boiler systems with any chemical additives not identified in the reissuance application package, the permittee shall provide the DEQ-Valley Regional Office written notification, for review, at least 30 days prior to implementing any such chemical addition. Notification shall include:
- A list of the chemical additives to be employed and their purpose, along with the appropriate Material Safety Data Sheet(s) (MSDS);
 - A schedule for the use of the additive(s); and
 - Wastewater treatment and/or retention to be provided during the use of the additive(s).

Should the use of chemical additives significantly alter the characteristics of the effluent or their usage become persistent or continuous, this permit may be modified or, alternatively, revoked and reissued to include appropriate limitations or conditions.

F. STORM WATER MANAGEMENT CONDITIONS**1. General Storm Water Special Conditions****a. Sample Type**

For all storm water monitoring required in Part I.A or other applicable sections of this permit, a minimum of one grab sample shall be taken. Unless otherwise specified, all such samples shall be collected from the discharge resulting from a storm event that occurs at least 72 hours from the previously measurable storm event (a "measurable storm event" is defined as a storm event that results in an actual discharge from the site). The required 72-hour storm event interval is waived where the permittee documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted. The grab sample shall be taken during the first 30 minutes of the discharge. If the collection of a grab sample during the first 30 minutes is impracticable, a grab sample can be taken during the first hour of the discharge, and the permittee shall submit with the monitoring report a description of why a grab sample during the first 30 minutes was impracticable. If storm water discharges associated with industrial activity commingle with process or non-process water, then where practicable permittees must attempt to sample the storm water discharge before it mixes with the non-storm water discharge.

b. Recording of Results

For each measurement or sample taken pursuant to the storm event monitoring requirements of this permit, the permittee shall record and report with the Discharge Monitoring Reports (DMRs) the following information:

- (1) The date and duration (in hours) of the storm event(s) sampled;
- (2) The rainfall total (in inches) of the storm event which generated the sampled discharge; and
- (3) The duration between the storm event sampled and the end of the previous measurable storm event.

In addition, the permittee shall maintain a monthly log documenting the amount of rainfall received at this facility on a daily basis. A summarization of this information shall also be submitted with the DMRs.

In the event that sampling of an outfall is not possible due to the absence of effluent flow during a particular testing period, the permittee shall provide written notification to DEQ with the DMR for the month following the period in which samples were to be collected.

c. Sampling Waiver

When a permittee is unable to collect storm water samples required in Part I.A or other applicable sections of this permit within a specified sampling period due to adverse climatic conditions, the permittee shall collect a substitute sample from a separate qualifying event in the next period and submit these data along with the data for the routine sample in that period. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).

d. Representative Discharges

When a facility has two or more outfalls that discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, the permittee may test the effluent of one of such outfalls and report that the quantitative data also apply to the substantially identical outfall(s) provided that: (1) the representative outfall determination has been approved by

DEQ prior to data submittal; and, (2) the permittee includes in the storm water pollution prevention plan (SWPPP) a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents.

e. Quarterly Visual Examination of Storm Water Quality

The permittee must perform and document a quarterly visual examination of a storm water discharge associated with industrial activity from each outfall, except discharges exempted below. The examination(s) must be made at least once in each of the following three-month periods: January through March, April through June, July through September, and October through December. The visual examination must be made during daylight hours (e.g., normal working hours). If no storm event resulted in runoff from the facility during a monitoring quarter, the permittee is excused from visual monitoring for that quarter provided that documentation is included with the monitoring records indicating that no runoff occurred. The documentation must be signed and certified in accordance with Part II.K. of this permit.

- (1) Visual examinations must be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging from the facility. The examination must document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well-lit area. No analytical tests are required to be performed on the samples. All samples (except snowmelt samples) must be collected from the discharge resulting from a storm event that results in an actual discharge from the site (defined as a "measurable storm event"), and that occurs at least 72 hours from the previously measurable storm event. The 72-hour storm interval is waived if the permittee is able to document that less than a 72-hour interval is representative for local storm events during the sampling period. Where practicable, the same individual should carry out the collection and examination of discharges for the entire permit term. If no qualifying storm event resulted in runoff during daylight hours from the facility during a monitoring quarter, the permittee is excused from visual monitoring for that quarter provided that documentation is included with the monitoring records indicating that no qualifying storm event occurred during daylight hours that resulted in storm water runoff during that quarter. The documentation must be signed and certified in accordance with Part II.K.
- (2) The visual examination reports must be maintained on-site with the SWPPP. The report must include the outfall location, the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.
- (3) If the facility has two or more outfalls that discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, the permittee may conduct visual monitoring on the effluent of just one of the outfalls and report that the observations also apply to the substantially identical outfall(s), provided that the permittee includes in the SWPPP a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area (i.e., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)) shall be provided in the plan.

- (4) When the permittee is unable to conduct the visual examination due to adverse climatic conditions, the permittee must document the reason for not performing the visual examination and retain this documentation onsite with the records of the visual examinations. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).

f. Allowable Non-Storm Water Discharges

- (1) The following non-storm water discharges are authorized by this permit provided the non-storm water component of the discharge is in compliance with f.(2), below:
 - (a) Discharges from fire fighting activities;
 - (b) Fire hydrant flushings;
 - (c) Potable water including water line flushings;
 - (d) Uncontaminated air conditioning or compressor condensate;
 - (e) Irrigation drainage;
 - (f) Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions;
 - (g) Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
 - (h) Routine external building wash down which does not use detergents;
 - (i) Uncontaminated ground water or spring water;
 - (j) Foundation or footing drains where flows are not contaminated with process materials; and
 - (k) Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but NOT intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).
- (2) Except for flows from fire fighting activities, the SWPPP must include:
 - (a) Identification of each allowable non-storm water source;
 - (b) The location where the non-storm water is likely to be discharged; and
 - (c) Descriptions of appropriate BMPs for each source.
- (3) If mist blown from cooling towers is included as one of the allowable non-storm water discharges from the facility, the permittee must specifically evaluate the discharge for the presence of chemicals used in the cooling tower. The evaluation shall be included in the SWPPP.

g. Releases of Hazardous Substances or Oil in Excess of Reportable Quantities

The discharge of hazardous substances or oil in the storm water discharge(s) from the facility shall be prevented or minimized in accordance with the SWPPP for the facility. This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill. This permit does not relieve the permittee of the reporting requirements of 40 CFR 110, 40 CFR 117 and 40 CFR 302 or § 62.1-44.34:19 of the Code of Virginia. Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117 or 40 CFR 302 occurs during a 24-hour period:

- (1) The permittee is required to notify the Department in accordance with the requirements of Part II.G. as soon as he or she has knowledge of the discharge;
- (2) Where a release enters a municipal separate storm sewer system (MS4), the permittee shall also notify the owner or the MS4; and
- (3) The SWPPP required by this permit must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

h. Additional Requirements for Salt Storage

Storage piles of salt or piles containing salt used for deicing or other commercial or industrial purposes shall be enclosed or covered to prevent exposure to precipitation. The permittee shall implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. All salt storage piles shall be located on an impervious surface. All runoff from the pile, and/or runoff that comes in contact with salt, including under drain systems, shall be collected and contained within a bermed basin lined with concrete or other impermeable materials, or within an underground storage tank(s), or within an above ground storage tank(s), or disposed of through a sanitary sewer (with the permission of the treatment facility). A combination of any or all of these methods may be used. In no case shall salt contaminated storm water be allowed to discharge directly to the ground or to state waters.

2. Storm Water Pollution Prevention Plan

A SWPPP is required to be developed and implemented for the facility. The plan shall include Best Management Practices (BMPs) that are reasonable, economically practicable, and appropriate in light of current industry practices. The BMPs shall be selected, designed, installed, implemented and maintained in accordance with good engineering practices to eliminate or reduce the pollutants in all storm water discharges from the facility. The plan shall also include any control measures necessary for the storm water discharges to meet applicable water quality standards.

Permittees shall implement the provisions of the SWPPP as a condition of this permit.

The SWPPP requirements of this permit may be fulfilled, in part, by incorporating by reference other plans or documents such as a spill prevention control and countermeasure (SPCC) plan developed for the facility under Section 311 of the Clean Water Act, or best management practices (BMP) programs otherwise required for the facility, provided that the incorporated plan meets or exceeds the plan requirements of Part I.F.2.b. below (Contents of the Plan). All plans incorporated by reference into the SWPPP become enforceable under this permit. If a plan incorporated by reference does not contain all of the required elements of the SWPPP of Part I.F.2.b. below, the permittee shall develop the missing SWPPP elements and include them in the required plan.

a. Deadlines for Plan Preparation and Compliance

- (1) The permittee shall review and implement the existing plan as expeditiously as practicable, but not later than 270 days from the effective date of the permit. Verification of compliance shall be provided, in writing, within 10 days of the above deadline.
- (2) Measures That Require Construction. In cases where construction is necessary to implement measures required by the plan, the plan shall contain a schedule that provides compliance with the plan as expeditiously as practicable, but no later than 3 years after the effective date of this permit. Where a construction compliance schedule is included in the plan, the schedule shall include appropriate nonstructural and/or temporary controls to be implemented in the affected portion(s) of the facility prior to completion of the permanent control measure.

b. Contents of the Plan

The contents of the SWPPP shall comply with the requirements listed below. The plan shall include, at a minimum, the following items:

- (1) Pollution Prevention Team. The plan shall identify the staff individuals by name or title that comprise the facility's storm water pollution prevention team. The pollution prevention team is responsible for assisting the facility or plant manager in developing, implementing, maintaining, revising, and ensuring compliance with the facility's SWPPP. Specific responsibilities of each staff individual on the team shall be identified and listed.

(2) Site Description.

The SWPPP shall include the following:

(a) Activities at the Facility.

A description of the nature of the industrial activities at the facility.

(b) General Location Map

A general location map (e.g., USGS quadrangle or other map) with enough detail to identify the location of the facility and the receiving waters within one mile of the facility.

(c) Site Map

A site map identifying the following:

- (i) The size of the property (in acres);
- (ii) The location and extent of significant structures and impervious surfaces (roofs, paved areas and other impervious areas);
- (iii) Locations of all storm water conveyances including ditches, pipes, swales, and inlets, and the directions of storm water flow (use arrows to show which ways storm water will flow);
- (iv) Locations of all existing structural and source control BMPs;
- (v) Locations of all surface water bodies, including wetlands;
- (vi) Locations of potential pollutant sources identified under paragraph b.(3) below;
- (vii) Locations where significant spills or leaks identified under paragraph b.(4) below, have occurred;
- (viii) Locations of the following activities where such activities are exposed to precipitation: fueling stations; vehicle and equipment maintenance and/or cleaning areas; loading/unloading areas; locations used for the treatment, storage or disposal of wastes; liquid storage tanks; processing and storage areas; access roads, rail cars and tracks; transfer areas for substances in bulk; and machinery;
- (ix) Locations of storm water outfalls and an approximate outline of the area draining to each outfall, and location of municipal storm sewer systems, if the storm water from the facility discharges to them;
- (x) Location and description of all non-storm water discharges;
- (xi) Location of any storage piles containing salt used for deicing or other commercial or industrial purposes; and
- (xii) Locations and sources of runoff to the site from adjacent property where the runoff contains significant quantities of pollutants. The permittee shall include an evaluation with the SWPPP of how the quality of the storm water running onto the facility impacts the facility's storm water discharges.

(d) Receiving Waters and Wetlands.

The name of all surface waters receiving discharges from the site, including intermittent streams, dry sloughs, and arroyos. Provide a description of wetland sites that may receive discharges from the facility. If the facility discharges through a municipal separate storm sewer system (MS4), identify the MS4 operator, and the receiving water to which the MS4 discharges.

(3) Summary of Potential Pollutant Sources.

The plan shall identify each separate area at the facility where industrial materials or activities are exposed to storm water. Industrial materials or activities include, but are not limited to: material handling equipment or activities, industrial machinery, raw materials, industrial production and processes, intermediate products, byproducts, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each separate area identified, the description shall include:

- (a) Activities in Area
 - A list of the activities (e.g., material storage, equipment fueling and cleaning, cutting steel beams); and
- (b) Pollutants
 - A list of the associated pollutant(s) or pollutant constituents (e.g. crankcase oil, zinc, sulfuric acid, cleaning solvents, etc.) for each activity. The pollutant list shall include all significant materials handled, treated, stored or disposed that have been exposed to storm water in the three years prior to the date this SWPPP was prepared or amended. The list shall include any hazardous substances or oil at the facility.
- (4) Spills and Leaks
 - The SWPPP shall clearly identify areas where potential spills and leaks that can contribute pollutants to storm water discharges can occur and their corresponding outfalls. The plan shall include a list of significant spills and leaks of toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a storm water conveyance during the three-year period prior to the date this SWPPP was prepared or amended. The list shall be updated if significant spills or leaks occur in exposed areas of the facility during the term of the permit. Significant spills and leaks include releases of oil or hazardous substances in excess of reportable quantities, and may also include releases of oil or hazardous substances that are not in excess of reporting requirements.
- (5) Sampling Data
 - The plan shall include a summary of existing storm water discharge sampling data taken at the facility. The summary shall include, at a minimum, any data collected during the previous permit term.
- (6) Storm Water Controls
 - (a) BMPs shall be implemented for all the areas identified in Part I.F.2.b.(3) above (Summary of Potential Pollutant Sources) to prevent or control pollutants in storm water discharges from the facility. All reasonable steps shall be taken to control or address the quality of discharges from the site that may not originate at the facility. The SWPPP shall describe the type, location and implementation of all BMPs for each area where industrial materials or activities are exposed to storm water. Selection of BMPs shall take into consideration:
 - (i) That preventing storm water from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from storm water;
 - (ii) BMPs generally shall be used in combination with each other for most effective water quality protection;
 - (iii) Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures;
 - (iv) That minimizing impervious areas at the facility can reduce runoff and improve groundwater recharge and stream base flows in local streams (however, care must be taken to avoid ground water contamination);
 - (v) Flow attenuation by use of open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;
 - (vi) Conservation or restoration of riparian buffers will help protect streams from storm water runoff and improve water quality; and
 - (vii) Treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.
 - (b) Control Measures
 - The permittee shall implement the following types of BMPs to prevent and control pollutants in the storm water discharges from the facility, unless it can be demonstrated and documented that such controls are not relevant to the discharges (e.g., there are no storage piles containing salt).
 - (i) Good Housekeeping
 - The permittee shall keep clean all exposed areas of the facility that are potential sources of pollutants to storm water discharges. Typical problem areas include areas around trash containers, storage areas, loading docks, and vehicle fueling and maintenance areas. The plan shall include a schedule for regular pickup and disposal of waste materials, along with routine inspections for leaks and conditions of drums, tanks and containers. The introduction of raw,

final or waste materials to exposed areas of the facility shall be minimized to the maximum extent practicable. The generation of dust, along with off-site vehicle tracking of raw, final or waste materials, or sediments, shall be minimized to the maximum extent practicable.

(ii) Eliminating and Minimizing Exposure.

To the extent practicable, industrial materials and activities shall be located inside, or protected by a storm-resistant covering to prevent exposure to rain, snow, snowmelt, and runoff. Note: Eliminating exposure at all industrial areas may make the facility eligible for the "Conditional Exclusion for No Exposure" provision of 9 VAC 25-31-120 E, thereby eliminating the need to have a permit.

(iii) Preventive Maintenance.

The permittee shall have a preventive maintenance program that includes regular inspection, testing, maintenance and repairing of all industrial equipment and systems to avoid breakdowns or failures that could result in leaks, spill and other releases. This program is in addition to the specific BMP maintenance required under Part I.F.2.c. below (Maintenance of BMPs).

(iv) Spill Prevention and Response Procedures.

The plan shall describe the procedures that will be followed for preventing and responding to spills and leaks.

(A) Preventive measures include barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling.

(B) Response procedures shall include notification of appropriate facility personnel, emergency agencies, and regulatory agencies, and procedures for stopping, containing and cleaning up spills. Measures for cleaning up hazardous material spills or leaks shall be consistent with applicable RCRA regulations at 40 CFR Part 264 and 40 CFR Part 265. Employees who may cause, detect or respond to a spill or leak shall be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals shall be a member of the Pollution Prevention Team.

(C) Contact information for individuals and agencies that must be notified in the event of a spill shall be included in the SWPPP, and in other locations where it will be readily available.

(v) Routine Facility Inspections

Facility personnel who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at the facility, and who can also evaluate the effectiveness of BMPs shall regularly inspect all areas of the facility where industrial materials or activities are exposed to storm water. These inspections are in addition to, or as part of, the comprehensive site evaluation required under Part I.F.2.d. below (Comprehensive Site Compliance Evaluation). At least one member of the Pollution Prevention Team shall participate in the routine facility inspections.

The inspection frequency shall be specified in the plan based upon a consideration of the level of industrial activity at the facility, but shall be a minimum of quarterly unless more frequent intervals are specified elsewhere in the permit or written approval is received from the department for less frequent intervals. At least once each calendar year, the routine facility inspection must be conducted during a period when a storm water discharge is occurring.

Any deficiencies in the implementation of the SWPPP that are found shall be corrected as soon as practicable, but not later than within 30 days of the inspection, unless permission for a later date is granted in writing by the director. The results of the inspections shall be documented in the SWPPP, along with the date(s) and description(s) of any corrective actions that were taken in response to any deficiencies or opportunities for improvement that were identified.

(vi) Employee Training

The permittee shall implement a storm water employee training program for the facility. The SWPPP shall include a schedule for all types of necessary training, and shall document all training sessions and the employees who received the training. Training shall be provided for all employees who work in areas where industrial materials or activities are exposed to storm water, and for employees who are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance personnel, etc.). The training shall cover the components and goals of the SWPPP, and include such topics as spill response, good housekeeping, material management practices, BMP operation and maintenance, etc. The SWPPP shall include a summary of any training performed.

(vii) Sediment and Erosion Control

The plan shall identify areas at the facility that, due to topography, land disturbance (e.g., construction, landscaping, site grading), or other factors, have a potential for soil erosion. The permittee shall identify and implement structural, vegetative, and/or stabilization BMPs to prevent or control on-site and off-site erosion and sedimentation. Flow velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel if the flows would otherwise create erosive conditions.

(viii) Management of Runoff

The plan shall describe the storm water runoff management practices (i.e., permanent structural BMPs) for the facility. These types of BMPs are typically used to divert, infiltrate, reuse, or otherwise reduce pollutants in storm water discharges from the site.

Structural BMPs may require a separate permit under § 404 of the CWA and the Virginia Water Protection Permit Program Regulation (9VAC25-210) before installation begins.

c. Maintenance

All BMPs identified in the SWPPP shall be maintained in effective operating condition. Storm water BMPs identified in the SWPPP shall be observed during active operation (i.e., during a storm water runoff event) to ensure that they are functioning correctly. Where discharge locations are inaccessible, nearby downstream locations shall be observed. The observations shall be documented in the SWPPP.

The SWPPP shall include a description of procedures and a regular schedule for preventive maintenance of all BMPs, and shall include a description of the back-up practices that are in place should a runoff event occur while a BMP is off-line. The effectiveness of nonstructural BMPs shall also be maintained by appropriate means (e.g., spill response supplies available and personnel trained, etc.).

If site inspections required by Part I.F.2.b.(6)(b)(v) above (Routine Facility Inspections) and Part I.F.2.d. below (Comprehensive Site Compliance Evaluation) identify BMPs that are not operating effectively, repairs or maintenance shall be performed before the next anticipated storm event. If maintenance prior to the next anticipated storm event is not possible, maintenance shall be scheduled and accomplished as soon as practicable. In the interim, back-up measures shall be employed and documented in the SWPPP until repairs or maintenance is complete. Documentation shall be kept with the SWPPP of maintenance and repairs of BMPs, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair or replacement, and for repairs, date(s) that the BMP(s) returned to full function, and the justification for any extended maintenance or repair schedules.

d. Comprehensive Site Compliance Evaluation

The permittee shall conduct comprehensive site compliance evaluations at least once a year. The evaluations shall be done by qualified personnel who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at the facility, and who can also evaluate the effectiveness of BMPs. The personnel conducting the evaluations may be either facility employees or outside constituents hired by the facility.

(1) Scope of the Compliance Evaluation

Evaluations shall include all areas where industrial materials or activities are exposed to storm water, as identified in Part I.F.2.b.(3) above. The personnel shall evaluate:

- (a) Industrial materials, residue or trash that may have or could come into contact with storm water;
- (b) Leaks or spills from industrial equipment, drums, barrels, tanks or other containers that have occurred within the past three years;
- (c) Off-site tracking of industrial or waste materials or sediment where vehicles enter or exit the site;
- (d) Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas;
- (e) Evidence of, or the potential for, pollutants entering the drainage system;
- (f) Evidence of pollutants discharging to surface waters at all facility outfalls, and the condition of and around the outfall, including flow dissipation measures to prevent scouring;
- (g) Review of training performed, inspections completed, maintenance performed, quarterly visual examinations, and effective operation of BMPs;
- (h) Results of both visual and any analytical monitoring done during the past year shall be taken into consideration during the evaluation.

- (2) Based on the results of the evaluation, the SWPPP shall be modified as necessary (e.g., show additional controls on the map required by Part I.F.2.b.(2)(c); revise the description of controls required by Part I.F.2.b.(6) to include additional or modified BMPs designed to correct problems identified). Revisions to the SWPPP shall be completed within 30 days following the evaluation, unless permission for a later date is granted in writing by the director. If existing BMPs need to be modified or if additional BMPs are necessary, implementation shall be completed before the next anticipated storm event, if practicable, but not more than 60 days after completion of the comprehensive site evaluation, unless permission for a later date is granted in writing by the Department;

(3) Compliance Evaluation Report

A report shall be written summarizing the scope of the evaluation, name(s) of personnel making the evaluation, the date of the evaluation, and all observations relating to the implementation of the SWPPP, including elements stipulated in Part I.F.2.d.(1)(a) through (h) above. Observations shall include such things as: the location(s) of discharges of pollutants from the site; location(s) of previously unidentified sources of pollutants; location(s) of BMPs that need to be maintained or repaired; location(s) of failed BMPs that need replacement; and location(s) where additional BMPs are needed. The report shall identify any incidents of noncompliance that were observed. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the SWPPP and this permit. The report shall be signed in accordance with Part II.K. and maintained with the SWPPP.

- (4) Where compliance evaluation schedules overlap with routine inspections required under Part I.F.2.b(6)(b)(v), the annual compliance evaluation may be used as one of the routine inspections.

e. Signature and Plan Review

(1) Signature/Location

The SWPPP shall be signed in accordance with Part II.K., dated, and retained on-site at the facility covered by this permit in accordance with Part II.B.2. All other changes to the SWPPP, and other permit compliance documentation, must be signed and dated by the person preparing the change or documentation.

(2) Availability

The permittee shall make the SWPPP, annual site compliance evaluation report, and other information available to the Department upon request.

(3) Required Modifications

The director may notify the permittee at any time that the SWPPP, BMPs, or other components of the facility's storm water program do not meet one or more of the requirements of this permit. The notification shall identify specific provisions of the permit that are not being met, and may include

required modifications to the storm water program, additional monitoring requirements, and special reporting requirements. The permittee shall make any required changes to the SWPPP within 60 days of receipt of such notification, unless permission for a later date is granted in writing by the director, and shall submit a written certification to the director that the requested changes have been made.

f. Maintaining an Updated SWPPP.

- (1) The permittee shall review and amend the SWPPP as appropriate whenever:
 - (a) There is construction or a change in design, operation, or maintenance at the facility that has a significant effect on the discharge, or the potential for the discharge, of pollutants from the facility;
 - (b) Routine inspections or compliance evaluations determine that there are deficiencies in the BMPs;
 - (c) Inspections by local, state, or federal officials determine that modifications to the SWPPP are necessary;
 - (d) There is a spill, leak or other release at the facility; or
 - (e) There is an unauthorized discharge from the facility.
- (2) SWPPP modifications shall be made within 30 calendar days after discovery, observation or event requiring a SWPPP modification. Implementation of new or modified BMPs (distinct from regular preventive maintenance of existing BMPs described in Part I.F.2.b.(6)(b)(iii)) shall be initiated before the next storm event if possible, but no later than 60 days after discovery, or as otherwise provided or approved by the Director. The amount of time taken to modify a BMP or implement additional BMPs shall be documented in the SWPPP.
- (3) If the SWPPP modification is based on a release or unauthorized discharge, include a description and date of the release, the circumstances leading to the release, actions taken in response to the release, and measures to prevent the recurrence of such releases. Unauthorized releases and discharges are subject to the reporting requirements of Part II.G. of this permit.

FACILITY NAME: Merck Sharp & Dohme Corp. -- Stonewall Plant
ADDRESS: P.O. Box 7
Elkton, VA 22827

Permit No. VA0002178
Attachment A
Page 1 of 1

DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY MONITORING

OUTFALL NO. 001

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
PESTICIDES/PCBS						
333-41-5	Diazinon	(4)	(5)		G or C	1/5 YR
ACID EXTRACTABLES ⁽⁵⁾						
104-40-51	Nonylphenol	(3)	(4)		G or C	1/5 YR

Name of Principal Exec. Officer or Authorized Agent/Title

Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

Footnotes to Water Quality Monitoring Attachment A

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.
- The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.
- Units for the quantification level are micrograms/liter unless otherwise specified.
- Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.
- (2) Sample Type
- G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.
- C = Composite = A 24-hour composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.
- (3) Any approved method presented in 40 CFR Part 136.
- (4) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.
- (5) Testing for phenols requires continuous extraction.

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.
4. All analysis for compliance with effluent limitations shall be in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

B. Records

1. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. Reporting Monitoring Results

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

Department of Environmental Quality
Valley Regional Office
P.O. Box 3000
Harrisonburg, Virginia 22801

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the Department.
3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.
4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of State waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date,

F. Unauthorized Discharges

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into State waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such State waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon State waters in violation of Part II.F.; or who discharges or causes or allows a discharge that may reasonably be expected to enter State waters in violation of Part II.F., shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter State waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II.I.2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of Noncompliance

The permittee shall report any noncompliance which may adversely affect State waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
 - a. Any unanticipated bypass; and
 - b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II.I. if the oral report has been received within 24 hours and no adverse impact on State waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II.I.1. or 2., in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II.I.2.

NOTE: The immediate (within 24 hours) reports required in Parts II.G, H, and I may be made to the Department's Valley Regional Office at (540) 574-7800 (voice) or (540) 574-7878 (fax). For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 1-800-468-8892.

J. Notice of Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - (1) After promulgation of standards of performance under Section 306 of the Clean Water Act which are applicable to such source; or
 - (2) After proposal of standards of performance in accordance with Section 306 of the Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
 - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements

1. Applications. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II.K.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part II.K.1.;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - c. The written authorization is submitted to the Department.
3. Changes to authorization. If an authorization under Part II.K.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.2. shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.
4. Certification. Any person signing a document under Parts II.K.1. or 2. shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of Federal, State or local law or regulations.

O. State Law

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other State law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II.U.), and "upset" (Part II.V.) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of Solids or Sludges

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering State waters.

S. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.U.2. and U.3.

2. Notice

- a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
- b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II.I.

3. Prohibition of bypass

- a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under Part II.U.2.
- b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II.U.3.a.

V. Upset

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II.V.2. are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.
2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required in Part II.I.; and
 - d. The permittee complied with any remedial measures required under Part II.S.
3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of Permits

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II.Y.2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part II.Y.1., this permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
 - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II.Y.2.b.

Z. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.